

Wheels of New Power Plants on Rogue River Soon Ready to Turn



No term can more aptly describe that portion of southern Oregon embracing the counties of Jackson, Josephine, Klamath, Douglas, Coos and Curry, a territory of 18,684 square miles, or approximately as large as the states of Vermont, Delaware and New Jersey combined, lying in the southwestern part of the state, than "nature's treasure vault," and the Rogue River valley is one great artery through which practically all of nature's treasures must flow to market.

In this territory are found natural resources of wonderful richness, which, owing to the lack of cheap power in the past, have remained practically undeveloped, awaiting the time when abundant water power of the Rogue river would be manufactured and sold as a necessity instead of a luxury. Among the many natural resources are its fertile lands, its immense water power, its gigantic timber forests, its diversified mineral deposits, consisting of gold, copper, coal, iron, platinum, silver, limestone, marble and granite, and its wonderful mineral waters. To thoroughly understand how bountiful nature has been in bestowing her gifts on this favored section, the reader will pardon a few dry statistics.

The territory in question contains approximately 19,000,000,000 board feet of standing timber, or approximately one-fifth of all the standing timber in the United States. These figures are so stupendous that

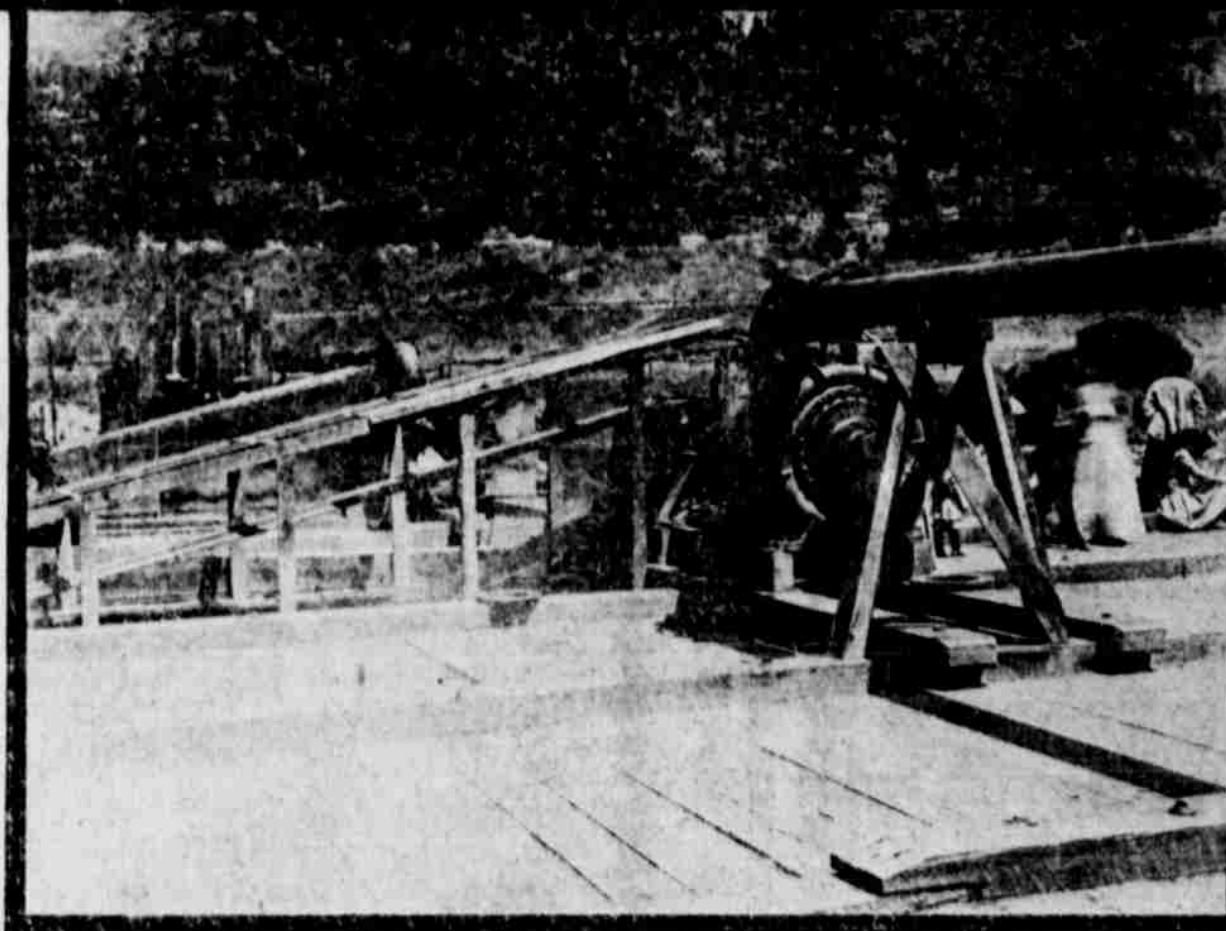
it is hard for the reader to imagine their magnitude and a better understanding will be had when the reader knows that this timber, when graded, will make approximately 137,791 trains of sixty cars each, or 8,267,450 car-loads, and that it would require over 135 years for forty car-loads of 100,000 board feet daily capacity to saw this timber into lumber.

Nature has provided the energy to develop on all of the rich resources of this territory in the shape of abundant water power. It is conservatively estimated that there is over 700,000 horsepower to be developed on

Power Plant at Gold Hill Now Nearing Completion.



Top, Lower Portion of Twenty-Foot Fall—Middle, Control Gates—Below, Head Gates Waiting For Water



Abstraction scenes at Golden Hill Dam—Building Dam and Glimpse of Water Wheels.

the more important streams of southern Oregon, or which considerably over one-half is found on Rogue river.

Upwards of \$20,000,000 in gold has been produced in the section under consideration and the ground has barely been scratched. The copper development of the Blue Ledge, Waddo and Galley districts is of such proportions that when the cheap power and transportation facilities are offered, that industry will compare favorably with its kin in the Montana copper districts.

Southern Oregon produces the major portion of the platinum found in the United States, while coal, iron, limestone, marble and granite deposits are abundant. The mineral water of the Ashland district ranks with the famous waters of Germany and Austria in their medicinal qualities.

Other than railroad transportation there is no other one thing that develops a new country like cheap power and cheap electric power means rapid and permanent development.

The hitherto undeveloped water power of the turbulent Rogue river means cheap power in its fullest sense and it further means that nature's great natural resources in southern Oregon are at last to re-

ceive the attention of the financial world that has been postponed until this time on account of the lack of power at prices which will permit of its unlimited use.

Our space is insufficient to go into detailed description of the many varieties of mineral waters, some with great medicinal features, the enormous and diversified mineral deposits, all of which are awaiting the advent of cheap motive power.

The litigation involving power and irrigation rights and properties in the over Rogue River valley was finally ended on August 27, 1914, at which time the property of the Golden Hill Mining company, including the large power plant on Rogue river, three and one-half miles east of Grants Pass, was turned over to the Rogue River Public Service corporation, making that company the disseminator to all effort, corporate and otherwise, made during the past fifteen years for the generation of hydraulic and electric power and providing an adequate irrigation system in the Rogue River valley, west of Gold Hill. Thus the Rogue River Public Service corporation succeeded fifteen corporations with an aggregate capitalization of \$14,710,000, and with an aggregate cash expenditure

of approximately \$1,000,000. In the consolidation of these various conflicting interests, advantage is taken of all the effort heretofore made and all of the heretofore cash expended and the capitalization of the new corporation was fixed at less than one-seventh of the total capitalization of its predecessors.

At the plant of the company near Grants Pass, now known as the Sanders plant, the company has 2400 hydraulic horsepower developed, and it is from this plant that the large gravity irrigation ditch to cover that portion of the valley west of Grants Pass finds its intake, and from this plant large pipe lines supply ditches on either side of the river, which, with the extensions now being made and planned to be completed for the irrigation season of 1915, the whole lower Rogue River valley west of this plant will be covered by an adequate and modern irrigation system. The company will also install electrical equipment at the Sanders plant the coming spring and will be in a position to meet the needs of all power and lighting users in that portion of the valley.

At Gold Hill, Oregon, the capacity of the company's plant is now being increased from 500 electrical horse

power to 1500 electrical horse power, and all of this power is contracted, the major portion of it being under contract to the Beaver Portland Cement company, for the operation of their 1900 barrel, daily capacity, cement plant on the outskirts of Gold Hill, when the same is in operation, which will be about February 1st, 1915. At the Gold Hill plant the company is throwing a concrete dam across Rogue river, of which a 110 foot section is now completed. The canal leading from the dam to the power house is three-eighths of a mile in length and at its intake into the river modern concrete and steel head-gates and spillways have been installed, permitting the handling of the waters of the river at all times. A new power house is to be erected to house the electrical machinery and water turbines now on the ground.

The company is now negotiating with the city of Medford, for a contract to furnish electric current in wholesale quantities at the city limits for municipal and commercial uses, the city to acquire, own and operate its own distributing system, the rate quoted to the city being so low that after paying all expenses of its distributing system, the city will be in a position to make a material reduction in the rates now charged for electric current. Should the company secure this contract it is their purpose to at once develop an additional 2000 horse power at their Gold Hill plant, and to connect that plant with their Sanders plant by a standard transmission line so that at all times an uninterrupted supply of current will be given.

The main office of the company is Grants Pass, Oregon, and branch offices are maintained at 951 Peoples Gas building, Chicago, Illinois, and the Marlon building, Indianapolis, Ind. The company's officials include, George E. Sanders, president; Frank M. Favre, vice-president; William E. English, director; Robert W. Reid, director; George W. Soranson, secretary, and Francis M. Favre, assistant treasurer. General counsel of the corporation is A. E. Reames, of Medford, Oregon.

\$600,000 Cement Plant Gold Hill

GOLD HILL, Ore., Dec. 31.—Delayed occasioned by the general stagnation of business during the past several months, hindered, to a certain degree, the progress of construction

at the Beaver-Portland cement company's \$600,000 plant near this city so far this winter. Good news for New Year's Day, both to this city and the entire valley, is the statement of company officials that construction work will be resumed not later than February 1st. It is also officially announced that the big industry will be in active operation throughout the coming summer. In all probability the plant will be ready to grind its first of cement by the first of June.

Building a modern cement mill is a mammoth undertaking. At the site selected by the Beaver-Portland people the actual work of construction and installing machinery is within a few months of completion.

Commencing at that point on the mountain-side, just west of Gold Hill, where the inexhaustible ledges of high grade cement lime rock has been uncovered for quarrying, the plan of the entire plant, sloping down to the tracks several hundred yards distant, is as follows:

From the quarry, connecting each unit to the slurry tanks, extends a three-rail gravity tramway, of the automatic switching type. The raw rock is first conveyed to the pondrous rock crusher directly below the quarry; thence to the storage bins and from there to the tube mill, where the rock is pulverized to the fine flour that enters the slurry tanks, a score of yards below. All buildings and equipment of this section are in place at present, with the exception of the tube mill.

Twenty feet in depth by 14 feet in diameter are the hexagonal slurry tanks of stout Oregon fir—a material said to be superior to any other for this purpose. The six tanks are grouped like a section of gigantic bee-comb. Into these passes the powdered rock to form the liquid solution of slurry. Directly beneath the tanks is the cement feeding platform, where the slurry is passed on to the fiery ordeal of the kiln.

Said to be third largest in the cement industry of the world, the kiln is a stolid-looking steel tube 200 feet in length by 10 in diameter. Its weight installed is a trifle of 1,200,000 pounds, and the freight bill from an eastern foundry to Gold Hill upon this single shipment as \$15,000. The kiln is already installed upon its trucks, which rest on three stout piers of cement. In operation it will slowly rotate, breath a white hot blast of crude oil, and calling for 75 h. p. to turn it over.

From the kiln the product emerges as clinker and is again ground before taking the conveyor for the warehouse. The clinker, or finishing mill is not yet in place. The big warehouse, already completed, houses four concrete bins, from the base of which conveyors carry the finished product to the yards. Thence it is but a score of yards to the tracks of the Southern Pacific, and entrance to the markets of the world.

Another large building contains the machine shops and local offices of the company. In this building, is a completely equipped smithy, machine shop, supply room, air compressor, laboratory and offices. The structure is 110 feet by 40, and two stories in height.

The maximum capacity of the local cement plant will be 1400 barrels per day, and will employ a force of 75 men. Its completion and operation this season will mean much for 1915 and the succeeding years in the ever increasing prosperity of our Oregon.

W. M. Schrupp of Minneapolis, vice president of the cement company, is here at present on business connected with the plant.